

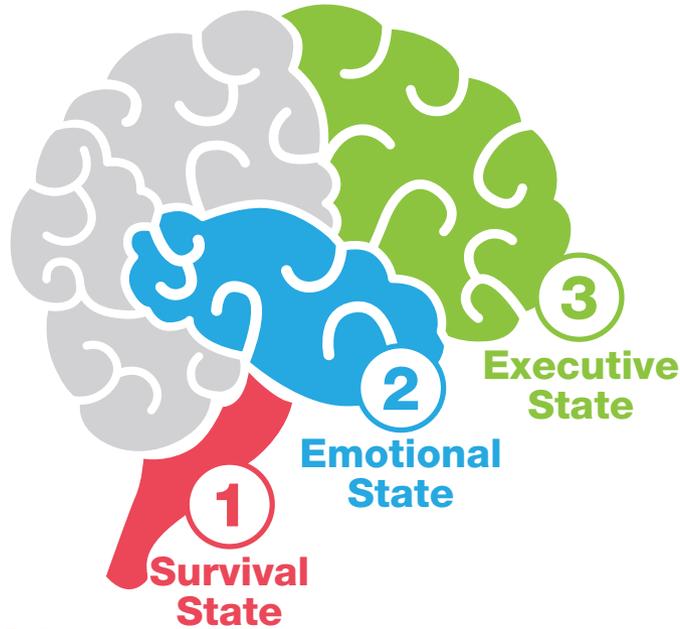


**Adverse
Childhood
Experiences**
Be the Change

Help me make sense of the world

Understanding the impact of
trauma on brain development

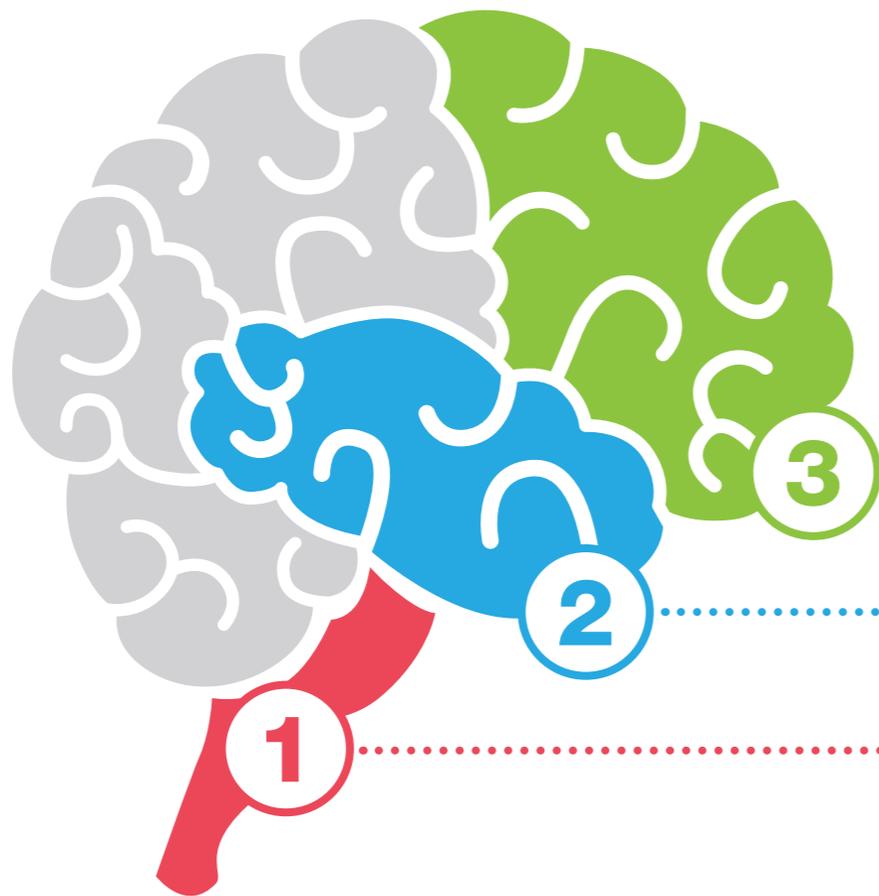
Adapted from [BeaconHouse.org.uk](https://www.beaconhouse.org.uk)



Brain Development

Developmental Trauma

Connecting to Calm



Brain Development

The human brain is an incredibly complex organ with two key stages of development. The first stage is during the first 3 years of life where it is estimated 90% of brain development has occurred. The second stage is during the adolescent years approximately between the ages of 12 - 25 years. This is an intense period of rapid wiring and insulating of neural pathways; potentially a challenging time for adolescents as the higher executive functions of the cortical brain are still developing. The limbic brain is particularly active during this period of development; emotional regulation and attachment relationships associated with the notion of belonging, are particularly important for adolescents.

3 Prefrontal Cortex - develops third

Thinking, learning, language, identity.

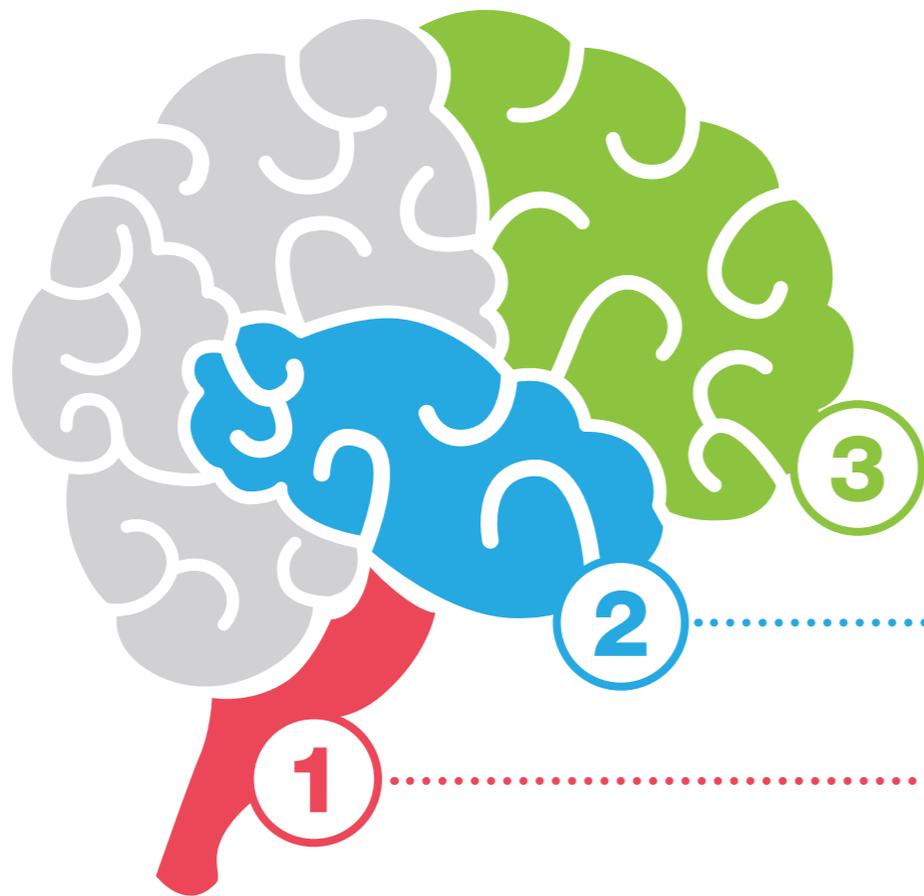
2 Limbic Brain – develops second

Emotions, attachment, memory and responses.

1 Brainstem – develops first

(known as the Primitive Brain)

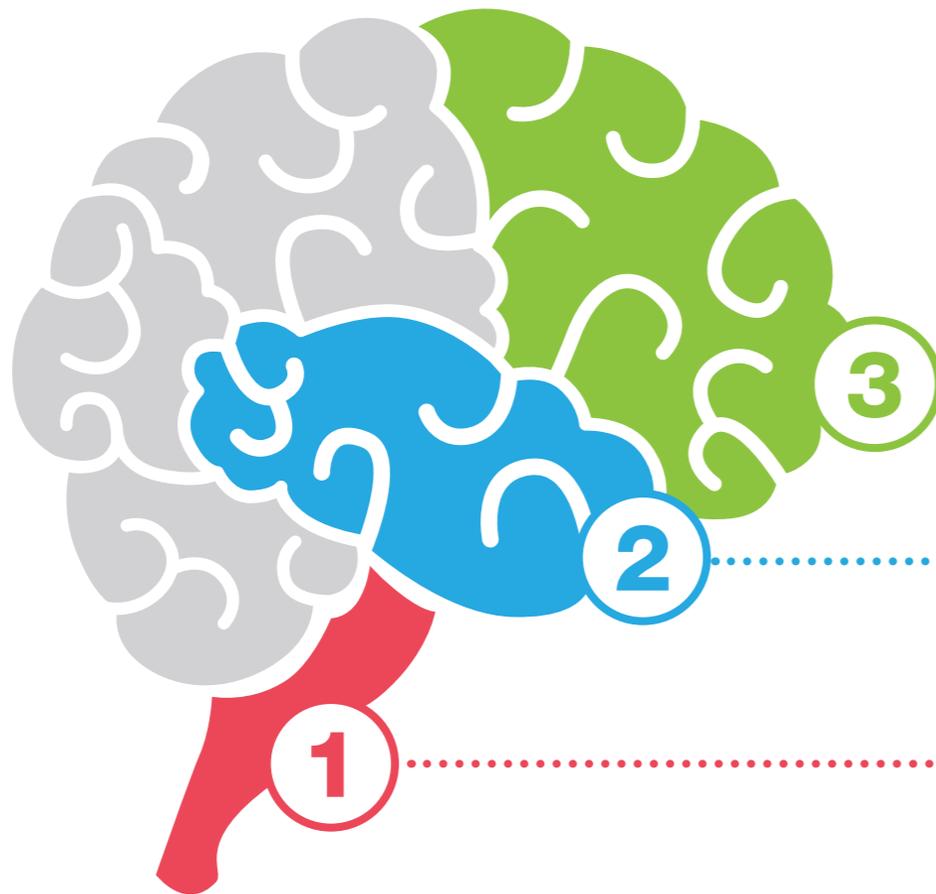
Sensory, motor, survival responses.



Developmental Trauma

Early trauma causes disruption in brain development. A child or adult who may have experienced early trauma without any mitigating factors, may operate in 'survival mode'. During this 'survival mode' the primitive brain is extremely active; it is specifically concerned with the concept of 'Am I safe?' Behaviour is adapted to maintaining safety and surviving, initiating the responses known as: fight/flight/freeze or flop. Children become particularly concerned with staying 'present' in the minds of adults which will be communicated through their behaviour. It is important to recognise that behaviour is a form of communication; for some that communication may be a representation of their trauma. The diagram, starting at number 1 explains how messages can become stuck within the lower regions of the brain, leaving little space for the development of empathy, reasoning and secure attachment relationships. The diagram gives examples of particular difficulties individuals experiencing trauma may have; allowing interpretation of behaviour as potentially their 'language of trauma.'

- 1 Sensory difficulties:**
Disrupted sleep patterns, abnormal breathing, lack of coordination, fight, flight, freeze, flop
- 2 Difficulties with regulating emotions and attachments:**
Clinging, rejecting, hiding, stealing, deadened emotions, aggression, anger, fear, self-harming
- 3 Difficulties with processing:**
Executive function disturbance: problems, planning, remembering, recalling, disorientated, blocked memory, self-hate and self-blame



Connecting to Calm

Recovery from traumatic experiences can happen within the context of secure supportive relationships. The previous section considering Developmental Trauma has demonstrated where messages can become stuck within the lower regions of the brain as the individual operates from 'survival mode'. In order to effectively respond to signs of trauma, supportive adults need to resist re-traumatising by connecting to the individual and helping them to re-regulate their emotional state. This is done by using a bottom up approach known as 'regulating, relating and reasoning' which mirrors the pattern of brain development. Start at number 1 by calming and maintaining safety progressing up to number 3. Only when all these steps have been taken will the individual who is displaying signs of trauma be ready to reflect on circumstances and respond effectively to any questions.

- 1** Use a soothing tone of voice. Offer warm blanket. Stay close by but not in front. Encourage deep breathing exercises. Offer chewy sweets, (this helps to re-regulate and slow down catastrophic thinking) hot chocolate if allowed. Allow frequent sensory breaks. Constantly reassure of safety.
- 2** Do not interrogate; maintain safety for individual and yourself. Constantly reassure. Warn of any change. Mentalise emotions through 'I am wondering...?' statements. Build a relationship. Stand alongside not in front. Do not demand eye contact. Allow breaks if expecting a task to be completed. Suggest only small repetitive tasks.
- 3** Reflect on incident, providing commentary and 'I am wondering..?' statements. Do not ask multiple questions. Reassure, praise, and establish boundaries. Break down the situation into small chunks. Organise and provide clear short instructions, praise when the task is completed.



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